

## Job Description

### *Missouri State Highway Patrol*

Class Title: Criminalist II - DNA (Convicted Offenders)

Title Code: V00516

Effective Date: 04/24/96

Date Reviewed:

Date Revised: 10/24/05

**Immediate Supervisor:** Criminalist Supervisor

**Position Supervised:** None

**FLSA Classification:** Non-exempt

**Working Hours:** An employee in this position works an eight-hour shift as directed by the division director; however, working hours are subject to change at the discretion of the commanding authority.

## POSITION SUMMARY

This is a responsible professional and technical position. Work includes performing complex and technical work in the collection and scientific analysis of biological samples for DNA profiling of convicted offenders and sexually violent predators under Missouri statutes using current DNA techniques. The employee may assist in the training of other criminalists and laboratory technicians. Work is performed under general supervision of a superior who makes assignments and provides advice and assistance in complex work methods; however, the employee is expected to work independently within the framework of established procedures and policies.

## DESCRIPTION OF DUTIES PERFORMED

(Any one position may not include all of the duties listed nor do the listed examples include all tasks, which may be found in positions of this class.)

Under general supervision:

Regularly performs DNA analysis on biological samples from convicted offenders and sexually violent predators using FTA Purification; PCR - STR analysis, capillary electrophoresis; interprets results with GeneMapper ID and enters DNA profiles into the Combined DNA Index System; assists with training unit's new employees to analyze DNA samples; assists with monitoring the offender databases for accuracy and completeness.

Collects and/or receives biological samples from convicted offenders and sexually violent predators; enters information into a database; prepares samples for DNA analysis.

Properly operates sensitive and complex scientific instrumentation and equipment; performs maintenance, troubleshooting and repair of instruments and equipment; advises supervisor of any need for repair; performs proper quality control checks for repaired and new equipment; assists with research, development and application of methods and/or techniques to upgrade unit's capability; participates in validation studies.

Regularly works with chemical and biological hazards; assists with monitoring the proper and safe uses of these hazards.

Performs work in accordance with all applicable quality assurance standards.

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Responds to requests from other agencies and laboratories regarding DNA Profiling.

Successfully completes competencies on new DNA technology.

Successfully completes two DNA proficiencies each year.

Trains law enforcement and corrections employees on the proper methods of collection, preserving and documenting the collection of DNA samples.

Develops and provides technical and scientific presentations to law enforcement and corrections personnel, attorneys and other scientists.

Prepares and provides courtroom testimony.

Advises of units ordering needs; places orders.

Knowledge of standard operating procedures, training, quality control and safety manuals within discipline; makes change suggestions for manuals and forms.

Operates standard office equipment, such as personal computer, telephones, fax machines and copiers; assists with training of unit's employees on operation of office equipment; advises supervisor of repair needs of office equipment.

Performs in and out of state, job related travel.

Performs other related duties as assigned.

### REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of the procedures and methods used in the collection and scientific analysis of biological samples for DNA profiling.

Knowledge of the preparation of evidence for presentation in court and the role of an expert witness in legal proceedings.

Knowledge and practice of safety rules and procedures associated with laboratory equipment and chemicals.

Knowledge of the conditions of the Missouri Statute regarding DNA profiling of convicted offenders.

Ability to read English effectively.

Ability to communicate in English clearly and concisely, both orally and in writing.

Ability to work with potentially hazardous materials as detailed in the description of duties.

Ability to generate and receive requests for information from a variety of individuals reference DNA analysis.

Ability to perform work in accordance with prescribed procedures, accurately notate observations of test results, and prepare records and reports.

Ability to gather, assemble, correlate, and analyze facts to be incorporated into a report of laboratory work and tests.

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Ability to maintain composure while under cross-examination in regard to personal and scientific qualifications and defend laboratory findings in court.

Ability to work with restricted, highly sensitive information in a confidential and professional manner.

Ability to compile and prepare information for court presentation.

Ability to recognize and identify minute details.

Ability to establish and maintain effective working relations with others.

Ability to properly use laboratory equipment, photography equipment, and standard office equipment.

Ability to prepare reagents and standards as prescribed in the appropriate procedure and quality manuals.

Ability to perform job-related travel (e.g., appearing in court and attending training meetings, seminars, etc.).

Ability to distinguish colors necessary to perform laboratory tests.

Ability to stand for extended periods and lift moderate loads (30 pounds).

Ability to participate and successfully pass practical and/or written competency test(s) prior to assuming DNA profiling duties for new technology.

Ability to maintain DNA proficiency.

Ability to assist other criminalists and laboratory technicians in DNA analysis.

Ability to assist in educating individuals reference forensic science.

Ability to assist in developing methods and/or techniques to upgrade laboratory capabilities.

Ability to review and assist with the revision of manuals.

Ability to work with material that may be of a sexual nature relating to criminal activity (e.g., written material, photographs, and/or verbal language, etc.).

Ability to work hours as assigned.

Ability to safely operate a motor vehicle.

### MINIMUM EXPERIENCE, EDUCATION, AND TRAINING REQUIRED

(The following represents the minimum qualifications used to accept applicants, provided that equivalent substitution will be permitted in case of deficiencies in either experience or education.)

Possess a baccalaureate degree in one of the natural sciences or a closely related field; coursework must include 20 semester hours in biology to include college coursework covering the subject areas of genetics, biochemistry, molecular biology (molecular genetics, recombinant DNA technology). Coursework and/or training in statistics and population

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genetics as it applies to forensic DNA analysis are recommended. These courses must comply with the FBI's Quality Assurance Standards for Convicted Offender DNA Databasing Laboratories and ASCLD/LAB's accreditation criteria. A minimum acceptable grade of C or equivalent in these core biology courses and the core baccalaureate major courses is required. Core courses with grades less than a C must be resolved by retaking the course and achieving a grade of at least a C. Prior job experience will not replace these minimum academic requirements.

Possess at least two years of experience as a Criminalist I - DNA Profiling or comparable experience.

### NECESSARY SPECIAL REQUIREMENTS

Must be a resident of Missouri at the time of appointment.

Must possess a valid Missouri drivers' license at the time of appointment.

Must be able to pass a polygraph examination after conditional offer of employment.

Must provide a DNA sample to be used only for forensic identification as required at the time of appointment.